

## EAA Seminar “Health Insurance: From the Actuarial Background to Product Development”

14/15 December 2015 | Vienna, Austria



Organised by the EAA - European Actuarial Academy GmbH in cooperation with the Österreichische Förderungsgesellschaft der Versicherungsmathematik GmbH (ÖFdV GmbH)

### 1. Introduction

In a broad sense, the expression *health insurance* denotes a large set of insurance products providing benefits in the case of need arising from either accident or illness, and leading to loss of income (partial or total, permanent or non-permanent), and/or expenses (hospitalization, medical and surgery expenses, nursery, rehabilitation, etc.).

In its framework we find traditional products, e.g. personal accident insurance, or sickness insurance with medical expense reimbursement and hospitalization benefits. More recently, new health insurance products have been proposed, for example Critical Illness covers and Long-term Care insurance (LTCI). In particular, LTCI products deserve great attention for various reasons. On the one hand, LTCI provides benefits of remarkable interest in the current demographic and social context. On the other hand, LTCI covers are “difficult” insurance products both from the insurer’s and the individual perspective.

## 2. Purpose and Nature

The seminar aims at providing the participants with a good understanding of the nature of health insurance products and related actuarial aspects, going into details on some particular and critical features and outlining recent developments.

To this purpose, the seminar first focuses on the individual need for health insurance covers, then moving to the type of benefits provided. Special attention is put on LTCI products and on possible packaging of health-related benefits with lifetime-related benefits, such as death benefits and life annuities. Besides the presentation of actuarial background, basic ideas and theory based on the book “Health Insurance. Basic actuarial models” (published in the EAA Series of Springer), numerical examples, concrete applications and implementation as well as risk management aspects will be shown. Every participant of the seminar will receive a free copy of the book.

More specifically, the following topics will be covered:

- The individual need for health insurance
- Health insurance products and related benefits
  - Accident insurance
  - Sickness insurance
  - Disability annuities and Income Protection
  - Critical Illness covers
  - Long-term Care Insurance (LTCI)
- Combining Health and Life benefits
- Premiums and reserves calculation
  - Ageing reserves in health insurance
  - Active and disabled reserves in Income Protection covers
  - Linking sickness benefits to an inflation index
- Choice of biometrical bases and sensitivity analysis for LTCI products
  - Senescent disability inception rates
  - Extra-mortality of disabled people
- Long-term contracts: examples, calculation, actuarial assumptions
- Crucial aspects of Risk management for health insurance

## 3. Participants

The seminar is open to all interested persons, such as actuaries operating in both life and non-life insurance companies as well as in pension funds, consultants and supervisors. It is expected that the participants have an understanding of elementary calculus and basic probability theory.

## 4. Lecturers

### Ermanno Pitacco

Ermanno Pitacco is full professor of Actuarial mathematics and Life insurance technique in the University of Trieste as well as academic director of the Master in Insurance and Risk Management at the MIB School of Management of Trieste. In addition he has been visiting professor in various universities (recently: University of New South Wales, Sydney; University of Louvain-La-Neuve; University of Ljubljana).

Main fields of scientific interest are life and health insurance mathematics and techniques, pension mathematics, longevity risk and portfolio valuations. He is author or co-author of textbooks and papers in the fields of scientific interest. His papers have been published,

among the others, on: Insurance Mathematics & Economics, ASTIN Bulletin, Journal of Pension Economics and Finance, Belgian Actuarial Bulletin, Journal of Actuarial Practice, Applied stochastic models in business and industry, AStA Advances in Statistical Analysis, Giornale dell'Istituto Italiano degli Attuari.

#### David Richter

David Richter is Manager within the Actuarial Services Team of PricewaterhouseCoopers Germany focusing on health insurance, risk management and Solvency II. As such he is in charge of actuarial consulting projects as well as audits. Prior to joining PwC he has been working for five years in the actuarial department of one of the biggest German health insurers. Besides he is lecturer for the German Actuarial Society (DAV). As member of actuarial working groups of DAV he contributes to the development of the Solvency II standard model approach for the valuation of technical provisions and SCR calculations for German health insurance.

### **5. Language**

The language of the seminar will be English.

### **6. Preliminary Programme**

#### Monday, 14 December 2015

08.45 - 09.00	Registration
09.00 - 09.15	Introduction & welcome (EAA)
09.15 - 10.45	The need for health insurance. Traditional products
10.45 - 11.00	Coffee Break
11.00 - 12.30	Recent health insurance products. Packaging benefits
12.30 - 13.30	Lunch
13.30 - 15.00	Actuarial background: premiums and reserves for sickness insurance. Linking benefits to inflation
15.00 - 15.15	Coffee Break
15.15 - 17.00	Actuarial background: premiums and reserve for Income Protection insurance
approx. 18.30	Dinner

#### Tuesday, 15 December 2015

09.00 - 10.45	Biometrical bases for LTCI products: a sensitivity analysis
10.45 - 11.00	Coffee Break
11.00 - 12.30	Long-term contracts: examples, calculation, actuarial assumptions
12.30 - 13.30	Lunch
13.30 - 15.10	Crucial aspects of Risk management for health insurance
15.10 - 15.15	Concluding remarks, closing of seminar (EAA)

### **7. Fees & Registration**

Please register for the seminar as soon as possible because of the expected demand. If there are more persons interested in this seminar than places available we will give priority to the registrations received first. Please send your registration as soon as possible by using our online registration form at [www.actuarial-academy.com](http://www.actuarial-academy.com).

Your registration is binding. Cancellation is only possible up to 4 weeks before the first day of seminar. If you cancel at a later date, the full seminar fee is due. You may appoint someone

to take your place, but must notify us in advance. EAA/ÖFdv have the right to cancel the event if the minimum number of participants is not reached.

Please always give your invoice number when you effect payment. All bank charges are to be borne by the participant. The ÖFdv GmbH will send you an invoice, please allow a few days for handling.

**Your early-bird registration fee is € 790.00 plus 20 % VAT until 28 October 2015. After this date the fee will be € 970.00 plus 20 % VAT.**

## **8. Accommodation**

The seminar will take place at the

Hotel Mercure Wien Westbahnhof  
Felberstraße 4 in 1150 Vienna, Austria  
[Hotel website](#)

We have arranged special prices for accommodation. The special rate is € 79.00 per night (single room), including breakfast. It is valid for bookings by 16 November 2015 out of our allotment "EAA Seminar". Our allotment includes a limited number of rooms. Kindly book your accommodation directly with the hotel using the booking form on our website, and note the hotel's cancellation policy.

## **9. CPD**

For this seminar, the following CPD points are available under the CPD scheme of the relevant national actuarial association:

Austria: 11 points  
Belgium: 11 points  
Bulgaria: 12 points  
Czech Republic: 2-3 points (individual accreditation)  
Estonia: 11 hours  
Germany: 12 hours  
Hungary: 12 hours  
Italy: approx. 4 credits (GdLA individual accreditation)  
Netherlands: approx. 11 PE-points (individual accreditation)  
Russia: 40 points  
Slovakia: 8 CPD points  
Slovenia: 50 points  
Switzerland: 15 points

No responsibility is taken for the accuracy of this information.